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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/785,435	02/20/2001	Mirosław Z. Bober	203185US-2 CIP	2907

22850 7590 06/16/2004

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ALEXANDRIA, VA 22314

EXAMINER

ENG, GEORGE

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 06/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/785,435

Applicant(s)

BOBER ET AL.

Examiner

George Eng

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20,22-24,32,53-55 and 58-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20,22-24,32,53-55 and 58-64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This Office action is in response to the amendment filed 3/25/2004 (paper no. 14).

Information Disclosure Statement

2. The information disclosure statement filed 5/21/2001 (paper no. 7) fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-20, 22-24, 32, 53-55 and 58-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leppisaari et al. (EP 884905A2 hereinafter Leppisaari) in view of Edanami (US PAT. 6,297,846).

Regarding claim 1, Leppisaari discloses a method of transmitting a video including an object of interest comprising the steps of capturing a sequence of images (64, figure 6A) in which the object of interest (19, figure 1B) occupies a fraction of each captured image (page 3 lines 39-51), tracking movement of the object of interest and selecting and extracting a region (62, figure 6A) of each captured image including the object of interest (page 3 line 52 through page 4 line 3), compensating for changing the object of interest in the sequence of images (page 4 lines 23-33) and coding only the selected region of each captured image to produce a coded region (page 4 lines 3-13). Leppisaari differs from the claimed invention in not specifically teaching compensating for changing in size of interest and selecting and extracting the region of each captured image including the object of interest and coding only the selected region of each captured image to produce the coded region after compensating for changes in the size of interest. However, Edanami teaches a display control system comprising an image scaling circuit (18, figure 2) for adjusting the size of a desired image, i.e., selected region, clipped from source pictures, i.e., a sequence of images, by an image clip unit (17, figure 2) to fit in an actual screen size and coding the desired image to produce a coded region after adjusting the size of the desired image (col. 4 line 51 through col. 5 line 27) in order to provide automatic control to maintain the clarity of images of the subject participants even if the subjects are moving.

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Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Leppisaari in compensating for changing in size of interest and selecting and extracting the region of each captured image including the object of interest and coding only the selected region of each captured image to produce the coded region after compensating for changes in the size of interest, as per teaching of Edanami, in order to provide automatic control to maintain the clarity of images of the subject participants even if the subjects are moving.

Regarding claims 2-3, Leppisaari discloses to stabilize the object of interest within the selected region, wherein the selected region is selected so that the object of interest is centered within the selected region (figure 1B).

Regarding claim 4, Leppisaari teaches to transmit the coded region and decoding and displaying the selected region (page 4 lines 8-13).

Regarding claims 5-7, Leppisaari discloses the selected region is display in a format comprising fewer pixels than the format of the captured image, wherein the object of interest occupies less than a predetermined fraction of each captured image (figure 1B and 6B).

Regarding claim 8, Leppisaari discloses a method of processing a video including an object of interest (19, figure 1B) in a sequence of images comprising the steps of selecting a region of an image (16, figure 1B) including the object of interest, the selected region being of a predetermined size, compensating for changing the object of interest in the sequence of images (page 4 lines 23-33) and coding only the selected region of each captured image to produce a coded region (page 4 lines 3-13). Leppisaari differs from the claimed invention in not specifically teaching compensating for changing in size of interest and selecting and extracting

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the region of each captured image including the object of interest and coding only the selected region of each captured image to produce the coded region after compensating for changes in the size of interest. However, Edanami teaches a display control system comprising an image scaling circuit (18, figure 2) for adjusting the size of a desired image, i.e., selected region, clipped from source pictures, i.e., a sequence of images, by an image clip unit (17, figure 2) to fit in an actual screen size and coding the desired image to produce a coded region after adjusting the size of the desired image (col. 4 line 51 through col. 5 line 27) in order to provide automatic control to maintain the clarity of images of the subject participants even if the subjects are moving. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Leppisaari in compensating for changing in size of interest and selecting and extracting the region of each captured image including the object of interest and coding only the selected region of each captured image to produce the coded region after compensating for changes in the size of interest, as per teaching of Edanami, in order to provide automatic control to maintain the clarity of images of the subject participants even if the subjects are moving.

Regarding claim 9, Leppisaari teaches only the selected is coded and the rest of the image is discarded (page 4 lines 3-13).

Regarding claim 10, the limitations of the claim are rejected as the same reasons set forth in claims 5-7.

Regarding claim 11, Leppisaari teaches the image is coded according to standard H.261 (page 4 lines 5-8) so that it recognizes the captured image, i.e., the large region, is in CIF format and the selected region, i.e., the small region, in QCIF format.

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Regarding claim 12, Leppisaari discloses the selected region being scaled to compensate for movement of the object of interest backward and forward relative to a camera that captured the image (page 4 lines 14-33).

Regarding claims 13-14, the limitations of the claims are rejected as the same reasons set forth in claims 2-3.

Regarding claim 15, Leppisaari discloses a method of processing a video including an object of interest (19, figure 1B) in a sequence of images comprising the steps of selecting a region of an image (16, figure 1B) including the object of interest, wherein the selected region is larger than an area occupied by the object of interest by a predetermined amount, changing the object of interest in the sequence of images (page 4 lines 23-33) and coding only the selected region of each captured image to produce a coded region (page 4 lines 3-13). Leppisaari differs from the claimed invention in not specifically teaching changing in size of the object of interest in the sequence of images. However, Edanami teaches a display control system comprising an image scaling circuit (18, figure 2) for adjusting the size of a desired image, i.e., selected region, clipped from source pictures, i.e., a sequence of images, by an image clip unit (17, figure 2) to fit in an actual screen size (col. 4 line 51 through col. 5 line 27) in order to provide automatic control to maintain the clarity of images of the subject participants even if the subjects are moving. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Leppisaari in changing in size of the object of interest in the sequence of images, as per teaching of Edanami, in order to provide automatic control to maintain the clarity of images of the subject participants even if the subjects are moving.

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Regarding claim 16, Leppisaari discloses that the object of interest (19, figure 1B) occupying a predetermined percentage of the selected region (16, figure 1B).

Regarding claims 17-18, Edanami discloses to scale the selected region to a predetermined size, wherein the predetermined size corresponds to a known image format (figures 18A-C).

Regarding claim 19, the limitations of the claim are rejected as the same reasons set forth in claim 11.

Regarding claim 20, Leppisaari discloses a method of transmitting video images comprising the steps of processing the video images including the steps of selecting a region of an image (16, figure 1B) including the object of interest, the selected region being of a predetermined size, compensating for changing the object of interest in the sequence of images (page 4 lines 23-33), coding only the selected region of each captured image to produce a coded region, transmitting the encoded image data of the video images and receiving, decoding and displaying the image data (page 3 line 39 through page 4 line 13).. Leppisaari differs from the claimed invention in not specifically teaching compensating for changing in size of interest and selecting and extracting the region of each captured image including the object of interest and coding only the selected region of each captured image to produce the coded region after compensating for changes in the size of interest. However, Edanami teaches a display control system comprising an image scaling circuit (18, figure 2) for adjusting the size of a desired image, i.e., selected region, clipped from source pictures, i.e., a sequence of images, by an image clip unit (17, figure 2) to fit in an actual screen size and coding the desired image to produce a coded region after adjusting the size of the desired image (col. 4 line 51 through col. 5 line 27) in

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order to provide automatic control to maintain the clarity of images of the subject participants even if the subjects are moving. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Leppisaari in compensating for changing in size of interest and selecting and extracting the region of each captured image including the object of interest and coding only the selected region of each captured image to produce the coded region after compensating for changes in the size of interest, as per teaching of Edanami, in order to provide automatic control to maintain the clarity of images of the subject participants even if the subjects are moving.

Regarding claims 22-24, the limitations of the claims are rejected as the same reasons set forth in claim 8.

Regarding claim 32, Edanami teaches to compensating for changing in the size of the object of interest in the sequence of images (figures 18A-C).

Regarding claims 53-55, Leppisaari discloses an object tracker to track movement of the object of interest in a sequence of images (page 4 lines 23-33), as well as Edanami (15, figure 2 and col. 7 line 56 through col. 9 line 23).

Regarding claim 58, the limitations of the claims are rejected as the same reasons set forth in claim 32.

Regarding claim 59, the combination of Leppisaari and Edanami discloses a video image processing circuit comprising a processor to perform the functions as defined in claim 8.

Regarding claims 60-61, the combination of Leppisaari and Edanami discloses a video image processing circuit or portable communication device comprising a camera and an image processing circuit as defined in claim 22.

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Regarding claim 62, Leppisaari teaches video processing circuit within a portable wireless communication device (30, figure 3).

Regarding claim 63, the limitations of the claims are rejected as the same reasons set forth in claim 32.

Regarding claim 64, the limitations of the claims are rejected as the same reasons set forth in claim 20.

Response to Arguments

6. Applicant's arguments with respect to claims 1-20, 22-24, 32, 53-55 and 58-64 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Okada et al. (US PAT. 5,594,494) discloses a moving picture coding apparatus for encoding a significant portion in a picture and increasing a coded bit rate allocated to the significant portion (abstract).

9. Any response to this final action should be mailed to:

BOX AF

Commissioner of Patents and Trademarks

Washington D.C. 20231

Or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, V.A., Sixth Floor (Receptionist).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Eng whose telephone number is 703-308-9555. The examiner can normally be reached on Tuesday to Friday from 7:30 AM to 6:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis A. Kuntz, can be reached on (703) 305-4870. The fax phone number for the organization where this application or proceeding is assigned is 703-308-6306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

A handwritten signature in black ink, appearing to read "George Eng". The signature is fluid and cursive, with the first name "George" and the last name "Eng" clearly distinguishable.

George Eng
Primary Examiner
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